

Date: Sun, 24 Apr 94 04:30:18 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #117
To: Ham-Ant

Ham-Ant Digest Sun, 24 Apr 94 Volume 94 : Issue 117

Today's Topics:

 70cm Parabolic Dish
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 Antenna Question
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 help-portable 2-7Mhz antenna
 LOOP OR INVERTED VEE?
 opinions on SG 303 antenna.
 Rhombic Antennas
 Slot antennas on cars?
 Will this work??

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 20 Apr 1994 00:39:01 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!news.cac.psu.edu!news.pop.psu.edu!
psuvax1!news.cc.swarthmore.edu!netnews.upenn.edu!iat.holonet.net!vectorbd!
jp11@network.ucsd.edu
Subject: 70cm Parabolic Dish
To: ham-ant@ucsd.edu

Yagi "science" has progressed to the point that +22dBd can be had with
four yagi's. That's hard to do with a dish. A Helix will take a gain hit
also. Four 70cm Yagi stack in a small enough group you can spin them
for chasing polarization and Faraday.

-Jim

--

-Jim Lill-
jpl1@vectorbd.com
wa2zkd@wb2psi.#wny.ny.usa.na

Vector Board BBS
716-544-1863/2645
GEnie: ZKD

Date: 23 Apr 94 17:01:14 GMT
From: dog.ee.lbl.gov!agate!headwall.Stanford.EDU!Csl1.Stanford.EDU!
kawai@ucbvax.berkeley.edu
Subject: AEA IsoLoop vs. MFJ 1786 HI Q Loop
To: ham-ant@ucsd.edu

Dick McCoy (N4UN, rpmccoy@bix.com) asks:

| Does anyone know of a review of the MFJ 1786? ... Has anyone done a
| comparison between the [AEA IsoLoop and MFJ 1786]?

Several months ago, QST carried an analysis of these two loops. I can't find the article among the back issues I have on my bookshelf; maybe somebody can tell us. The article basically said, if I recall correctly, that both loops performed adequately, although for any given frequency, a full-size dipole outperforms (no big surprise). There was no marked difference between the AEA and MFJ. The "metal strip vs tube" claim didn't seem to have much of an effect.

I could be wrong about how I remember the article, so please refer to the article itself for definitive information.

The May QST, which I received only yesterday, has an article on how to build your own loop. This is exactly what I plan to do. I want a 40-meter antenna. Neither the AEA IsoLoop nor MFJ-1786 work below 30 meters. The QST article describes a QRP antenna; I imagine 100-watt versions can be built using beefier components.

Ed Hare (ARRL) commented excitedly about the QRP loop. The excitement is catching! I want one, too!

	SRI International		work:(415)859-2231
	Speech Technology and Research		fax:(415)859-5984
Goh Kawai	Menlo Park, CA 94025-3493 USA		home:(415)323-7214
	internet: kawai@speech.sri.com		radio: N6UOK and 7L1FQE

Date: 23 Apr 94 00:33:00 GMT
From: blkcat!org!fidonet!z1!n109!f239!Jack.Anderson@uunet.uu.net
Subject: Antenna Question
To: ham-ant@ucsd.edu

Greetings,

For some time I used a Radio Shack CB fiberglass vertical on 10 and 12 meters. The antenna tunes up nicely on both bands and works quite well. Recently I purchased an Alpha-Delta parallel dipole for 10, 15, 20, 30 and 40 meters. It uses shorteners on the 20/40 meter elements for an overall length of 40' - nice for me, since I don't have much space. I use a Kenwood TS-50S with the matching AT-50 tuner.

Here's the strange part - some time ago, much to my surprise, I discovered that the AT-50 could tune the old CB vertical on every amateur band above 80 meters, and actually tuned a good portion of 80 as well. These were "easy tunes", too - the tuner found the right setting fast, every time. Granted, the CB vertical probably didn't radiate much power on the lower bands, but it did tune up for 10, 12, 15, 17, 20, 30, 40 and a good bit of 80.

I'm not having much luck with the new dipole though. I can't tune it up on most of the 10 meter band, and it won't tune any part of 12 or 17 meters. (It's not designed to work on 12 or 17 meters, but Alpha-Delta says it will work there with a tuner.)

I plan to check the SWR bandwidth of the antenna on 10 meters. I might be able to adjust the 10 meter element lengths a bit to improve performance there. I doubt there's much I can do about 12 and 17 meters without messing up the other bands. I'm just baffled, because (again, much to my surprise) the tuner could tune up every single amateur band above 80 meters on an old CB vertical. Why would it not perform at least this well on an antenna that's designed to work on the lower frequencies? Any ideas?

73,
Jack Anderson
N4ULS

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-or-
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|

| Standard disclaimer: The views of this user are strictly his own.

Date: Wed, 20 Apr 94 17:35:50 +1000
From: ihnp4.ucsd.edu!munnari.oz.au!yoyo.aarnet.edu.au!news.adelaide.edu.au!
news.cs.su.oz.au!metro!asstdc.scgt.oz.au!active!cheese@network.ucsd.edu
Subject: Basic antenna
To: ham-ant@ucsd.edu

In <2p12tk\$3lc@pellew.ntu.edu.au> rohan@nutmeg.ntu.edu.au (Rohan Hawthorne
61-89-895442) writes:

>What do I need to make a basic, cheap transmitting antenna. I want to be able
>to transmit possibly FM, but probably AM, to a distance of approx 5km radius.

On which frequencies do you wish to transmit? You don't mean the AM and FM
broadcast bands, do you? The Spectrum Management Agency would no doubt be
very interested (unless you've already arranged a licence with them). And
yes, they've got a Net connection, and have probably already read your post.

>Is it only possible to buy such beasties from commercial hardware stores, or
>can a simpleton like myself wack one together ?

They're not hard to make, but without knowing what frequency you intend to
operate on, it's a lot like the question "how long is a piece of string?"

--
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PO Box 199 Alexandria NSW 2015 Ph +61 2 353 0143 Fax +61 2 353 0720

Date: 20 Apr 94 01:02:14 GMT
From: dog.ee.lbl.gov!newshub.nosc.mil!news!horowitz@ucbvax.berkeley.edu
Subject: Coax Loss on HF
To: ham-ant@ucsd.edu

I thought that vswr-induced losses are proportional to frequency. I was
under the impression that for, say, 160-40 meters, the only good reason to
bother with a transmatch was so the transmitter's finals would see a load they
felt comfortable with.

Date: 21 Apr 94 19:27:10 GMT
From: agate!howland.reston.ans.net!europa.eng.gtefsd.com!darwin.sura.net!
hearst.acc.Virginia.EDU!portal.gmu.edu!mason1.gmu.edu!drickers@ucbvax.berkeley.edu

Subject: help-portable 2-7Mhz antenna
To: ham-ant@ucsd.edu

I am looking for a portable, horizontally polarized, antenna for a HF-ALE application. It must be broadband, 2-7Mhz because of the ALE usage and the short communications range, 50-300 miles.

The antennas I've seen, the inverted V and sloping dipole, get quite long at the low frequencies and limit the portability of the antenna. The installation must also be simple- for semi-skilled operators, to set up and take down.

I'd be interested in any of your experiences.

drickers@gmu.edu

Date: 21 Apr 94 04:01:03 EST
From: ihnp4.ucsd.edu!usc!cs.utexas.edu!howland.reston.ans.net!gatech!newsxfer.itd.umich.edu!gumby!wmichgw!x90galbrait1@network.ucsd.edu
Subject: LOOP OR INVERTED VEE?
To: ham-ant@ucsd.edu

Greetings!

I've asked a similar question, but my mail folders have been purged-ugh. This one's a bit different anyhow...

I wish to construct a wire antenna for 160-10m. I am considering either a delta loop fed at a lower corner, a delta loop fed at the apex, a delta loop fed 1/4 wave (of 40m) up from a lower corner, or a plain jane 80m inverted vee at 60ft- each design would be fed with 450ohm ladder line. All loop configs would be right-side up (/ \).

Which would work the best for a combination of stateside and DX work, or rather which has a good angle of radiation for general use???

Thanks for any suggestions!
Chris, KA8WFC

Date: Fri, 22 Apr 1994 04:18:00 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!jkauffmn@network.ucsd.edu
Subject: opinions on SG 303 antenna.
To: ham-ant@ucsd.edu

Hi

I'm going to purchase a SGC 230 smart-tuner and feed a 108 inch fiber glass whip. I noticed that SGC has a 10 foot dual element vertical (SG303) and are asking about \$400.00+ for the thing.

Does anyone have any experience with the SG 303 that could convince me to spend the difference between the SG 303 and a \$23.00 whip.

TYIA, post or send Email

Jim, N7TT0
jkauffmn@netcom.com

Date: 22 Apr 94 13:34:46 GMT
From: agate!howland.reston.ans.net!noc.near.net!news.delphi.com!news.delphi.com!
not-for-mail@ucbvax.berkeley.edu
Subject: Rhombic Antennas
To: ham-ant@ucsd.edu

I am interested in rhombic antennas. I have two up and running and would like to hear other's experiences and pointers. I also have a copy of the original Harpers text on rhombics. Any other texts, articles or anecdotal information would be interesting.

Thanks

Ian Cummings
ICUMMINGS@Delphi.com

Date: Thu, 21 Apr 1994 17:13:38 GMT
From: mdisea!mothost!lmpsbbs!news@uunet.uu.net
Subject: Slot antennas on cars?
To: ham-ant@ucsd.edu

In article 3JK@ncifcrf.gov, mack@ncifcrf.gov (Joe Mack) writes:
> In article <CoGysK.7rt@hpcvsnz.cv.hp.com> tomb@lsid.hp.com (Tom Bruhns) writes:
> >Has anyone out there experimented with slot antennas on cars? There are
> >several places you could make this work, but I was thinking of a slot
> >formed from wire (or copper tape) placed at the top inside of the rear
> >window.
>
> NASA uses one on the space shuttle for the SAREX stuff. They get contacts
> for 50-100 miles easily.

>
> Joe Mack NA3T
> mack@ncifcrf.gov
>

No NASA does not use a slot antenna for SAREX. The original antenna was a cavity backed loop. The current antenna is more like a stubby "rubber duck" inside a cavity.

73,
Bruce, WB4YUC
Motorola ARC
SAREX Team Member

Date: Wed, 20 Apr 1994 10:55:51 -0400
From: ihnp4.ucsd.edu!news.acns.nwu.edu!ftpbox!mothost!lmpsbbs!NewsWatcher!
user@network.ucsd.edu
Subject: Will this work??
To: ham-ant@ucsd.edu

In article <2ov9pl\$162@vixen.cso.uiuc.edu>, bpea@prairienet.org (Bruce Pea) wrote:

>
> My backyard is 57'x85', not quit big enough to get that 204'
> dipole up :- (Instead of a dipole, I'm going to try putting a
> vertical up. My question is, instead of running 100+ individual
> ground wires out from the base of the vertical, can I lay
> varying lengths of chicken wire out??
>
> Will the chicken wire be a better ground plane than the individual
> wires??

It certainly will be better and also much easier to install, but unfortunately it also tends to corrode fairly quick when buried under a layer of sod, sand , or whatever you use to keep it separated from the lawn mower blades.

Of course you could just put down fewer radials, 12 to 16 being a round number beyond which there is very little additional improvement. I also recommend that you pound in at least three 8' ground rods around the base of the vertical, on about an 8' radius from the base.

Another alternative would be to use a shorter antenna (G5RV for 80 up is 105') and then feed the whole thing against ground on 160, using a

good tuner and a decent ground (back to the chicken wire again!).

>

> Thanks -

>

> Bruce

--

Karl Beckman, P.E. < STUPIDITY is an elemental force for which >
Motorola Comm - Fixed Data < no earthquake is a match. -- Karl Kraus >

The statements and opinions expressed here are not those of Motorola Inc.
Motorola paid a marketing firm a huge sum of money to get their opinions;
they have made it clear that they do not wish to share those of employees.

Amateur radio WA8NVW @ K8MR.NEOH.USA.NA

NavyMARS VBH @ NOGBN.NOASI

End of Ham-Ant Digest V94 #117
